

NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF ANY OTHER COMPONENT OF THE STRUCTURE.) THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.

COMPONENT OR DETAIL	DRAWING NUMBER REFERENCE
NONE	-

CONCRETE DISTRIBUTION

COMPONENT	UNIT	QUANTITY
SUPERSTRUCTURE	CY	21
SUBSTRUCTURE	CY	8
FOOTINGS	CY	0
TOTAL	CY	29

INSPECTION OF FIELD WELDS

METHOD	UNIT	QUANTITY
ULTRASONIC	INCH	0
MAGNETIC PARTICLE	FEET	5

CONCRETE SUBSTRUCTURE REPAIR NOTES

ALL CRACKS $\frac{1}{8}$ " WIDE AND GREATER SHALL BE REPAIRED BY "EPOXY INJECTION CRACK REPAIR". SEE SPECIAL PROVISION.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, ALL SPALLS, INCLUDING CORNER RECONSTRUCTION, SHALL BE REPAIRED BY "CLASS 'S' CONCRETE". SEE SPECIAL PROVISION.

CONCRETE AT HOLLOW AREAS SHALL BE REMOVED TO SOUND CONCRETE AND AREA SHALL BE REPAIRED BY CLASS 'S' CONCRETE".

IF AFTER CONCRETE REMOVAL, THE REINFORCING STEEL HAS AT LEAST ONE HALF OF ITS SURFACE AREA EXPOSED, THE CONCRETE SHALL BE FURTHER REMOVED TO A DEPTH OF 1" BEHIND THE REINFORCING STEEL.

IF DURING REMOVAL OF DETERIORATED CONCRETE, THE CONTRACTOR DAMAGES EXISTING REINFORCEMENT TO THE EXTENT REQUIRING REPLACEMENT, ANY ADDITIONAL CONCRETE REMOVAL AND REPLACEMENT WITH PATCHING MATERIAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

IN AREAS WHERE EXTENSIVE DETERIORATION EXISTS ON THE UNDERSIDE OF CANTILEVERED PIER CAPS, THE AMOUNT OF DETERIORATED CONCRETE REMOVED AND PATCHED AT ONE TIME SHALL BE LIMITED TO A 2 FOOT WIDTH MAX. AREAS CLOSEST TO THE PIER COLUMN SHALL BE REPAIRED FIRST. SUBSEQUENT PATCHING SHALL PROCEED OUTWARD TOWARD THE FREE END OF THE PIER CAP. WORK CAN BE MOVED TO THE NEXT STRIP ONLY WHEN THE CONCRETE ON THE REPAIRED SECTION HAS OBTAINED ITS DESIGN STRENGTH. IF THE DEPTH OF THE DETERIORATED CONCRETE EXCEEDS 6", CONTRACTOR SHALL STOP REMOVING CONCRETE AND NOTIFY THE ENGINEER. SEE SPECIAL PROVISION FOR "CLASS 'S' CONCRETE."

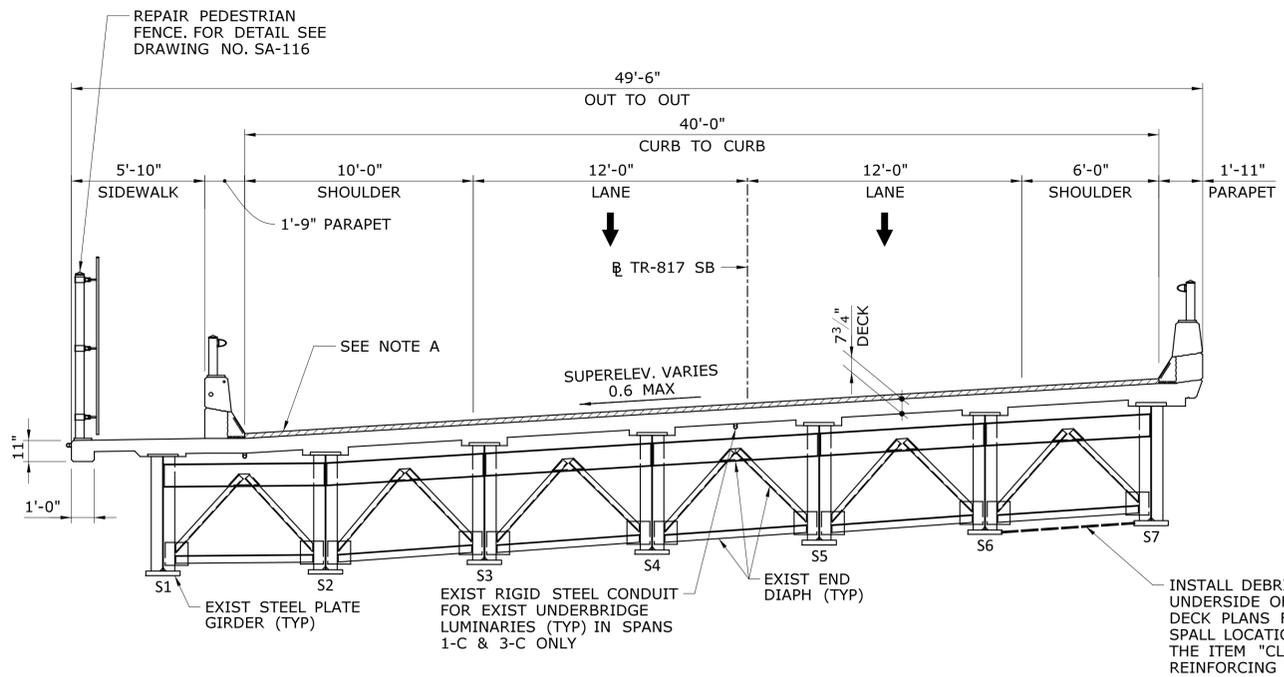
THE CONTRACTOR SHALL REPAIR ONE FACE OF A PIER AT A TIME. THE AMOUNT OF DETERIORATED CONCRETE REMOVED AND PATCHED AT ONE TIME SHALL BE LIMITED TO A 3.5 FOOT WIDTH MAX. STRIP. WORK CAN BE MOVED TO THE NEXT STRIP ONLY WHEN THE CONCRETE ON THE REPAIRED SECTION HAS OBTAINED ITS DESIGN STRENGTH. IF THE DEPTH OF THE DETERIORATED CONCRETE EXCEEDS 6", CONTRACTOR SHALL STOP REMOVING CONCRETE AND NOTIFY THE ENGINEER. SEE SPECIAL PROVISION FOR "CLASS 'S' CONCRETE."

THE LOCATION AND EXTENT OF SUBSTRUCTURE DETERIORATION SHOWN ON THESE DRAWINGS IS BASED ON AN INSPECTION REPORT DATED SEPTEMBER, 2013 AND LIMITED FIELD INVESTIGATION. IT IS INTENDED TO BE USED AS A GUIDE AND DOES NOT NECESSARILY REFLECT THE CURRENT CONDITION OF THE STRUCTURE.

THE EXISTING STRUCTURE INFORMATION, INCLUDING DIMENSIONS SHOWN ON THESE DRAWINGS IS BASED ON ORIGINAL DESIGN DRAWINGS AND SUBSEQUENT REPAIR DRAWINGS AND IS NOT GUARANTEED.

BRIDGE QUANTITIES

ITEM	UNIT	QUANTITY
PMA S0.25	TON	90
PMA S0.5	TON	135
MATERIAL FOR TACK COAT	GAL	81
REMOVAL OF EXISTING WEARING SURFACE	SY	1625
JACKING EXISTING SUPERSTRUCTURE (SITE NO. 2)	LS	LS
CLEAN EXISTING SCUPPERS	EA	2
ASPHALTIC PLUG EXPANSION JOINT SYSTEM	CF	60
BEARING REPLACEMENT WITH ELASTOMERIC BEARING PADS	EA	21
3" ELASTOMERIC COMPRESSION SEAL	LF	30
CLASS "S" CONCRETE	CY	5
CLASS "F" CONCRETE	CY	3
FULL DEPTH PATCH (HIGH EARLY STRENGTH CONCRETE)	CY	12
PARTIAL DEPTH PATCH	CF	241
REPAIR OF BEARING PAD	EA	5
EPOXY INJECTION CRACK REPAIR	LF	5
DEFORMED STEEL BARS	LB	400
DRILLING AND GROUTING REINFORCING BARS	LF	40
CLEAN AND COAT EXPOSED REINFORCING STEEL	LF	7
REPAIR DEFECTIVE WELDS	LF	5
STRUCTURAL STEEL REPAIRS (SITE NO. 2)	CWT	41
ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 2)	LS	LS
CLASS 1 CONTAINMENT AND COLLECTION OF SURFACE PREPARATION DEBRIS (SITE NO. 2)	LS	LS
MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)	SY	1625
RESET METAL POST	EA	216
CONCRETE HAUNCH REMOVAL	LF	2874
LOCALIZED PAINT REMOVAL & FIELD PAINTING OF EXISTING STEEL	SF	10
PROTECTIVE COMPOUND FOR BRIDGES	SY	35
REMOVAL OF EXISTING STRUCTURAL STEEL	LS	LS

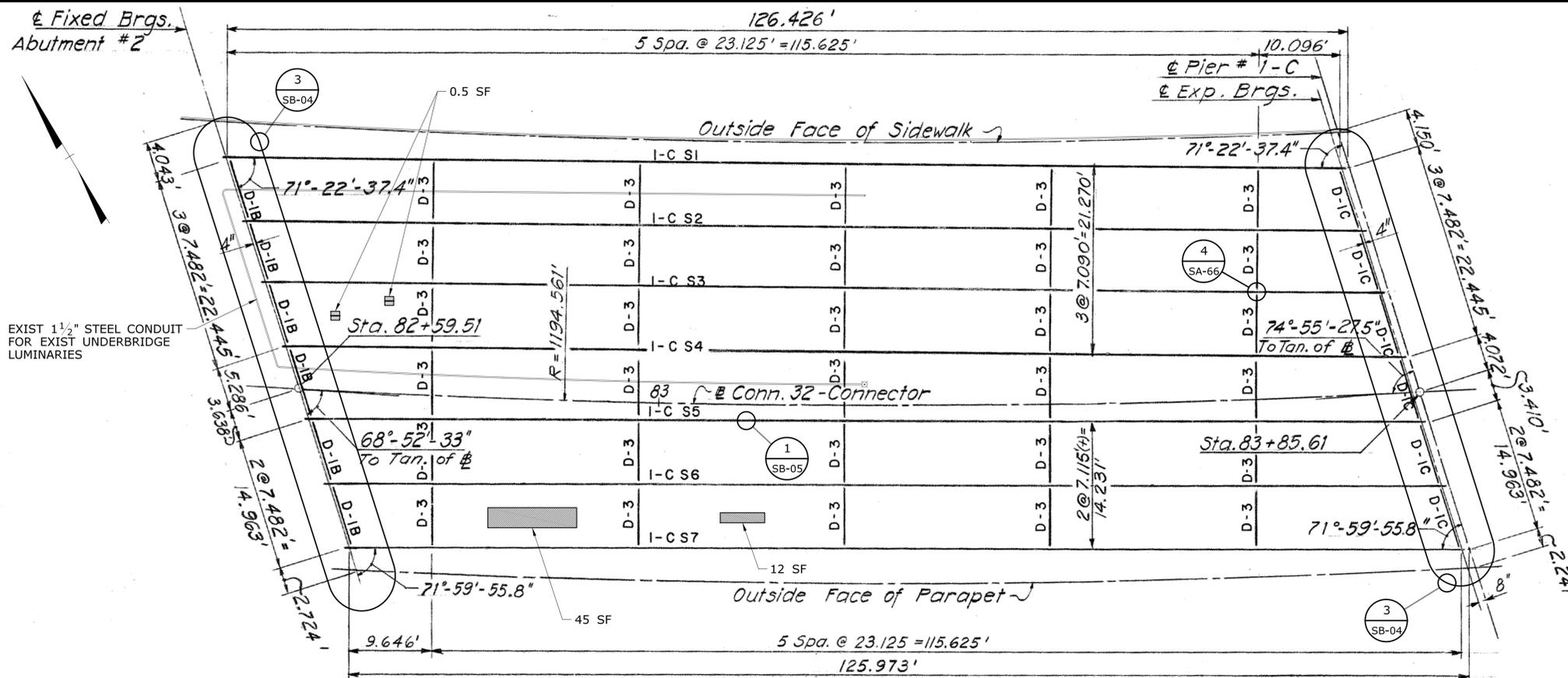


NOTE A: REMOVE EXISTING PMA, PATCH CONCRETE DECK AS REQUIRED, PLACE MEMBRANE WATERPROOFING, REPAVE WITH PMA OVERLAY FOR ENTIRE LIMITS OF BRIDGE. MAINTAIN EXISTING CROSS SLOPE.

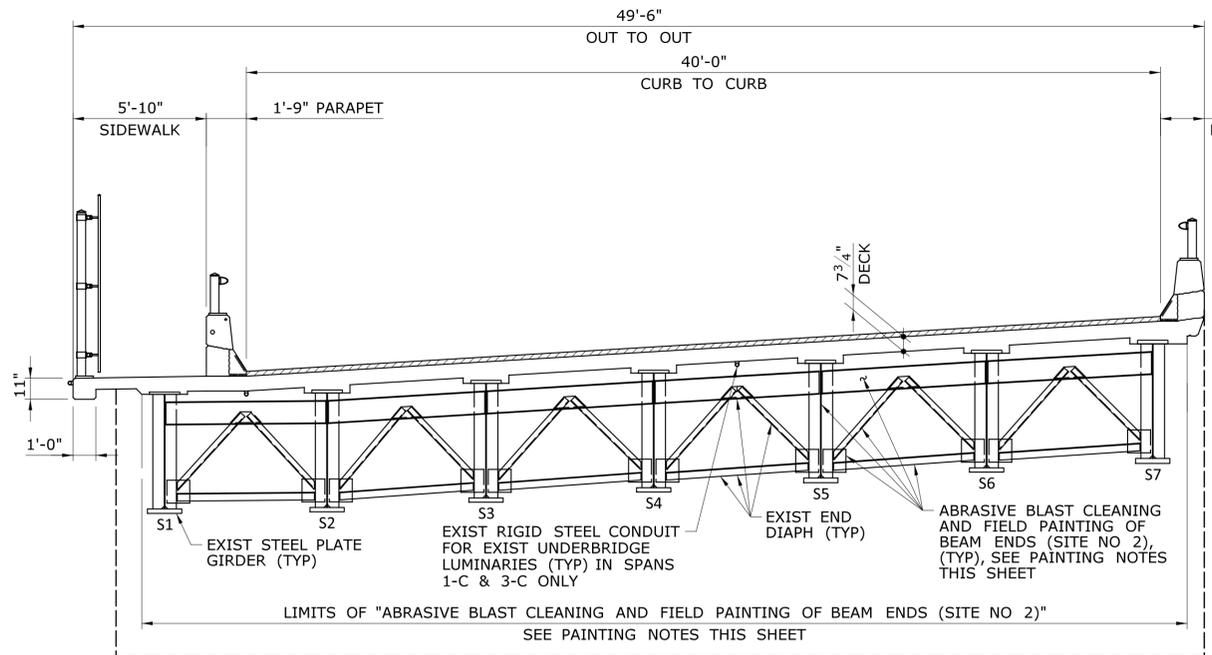
TYPICAL BRIDGE SECTION

SCALE: 1/4" = 1'-0"

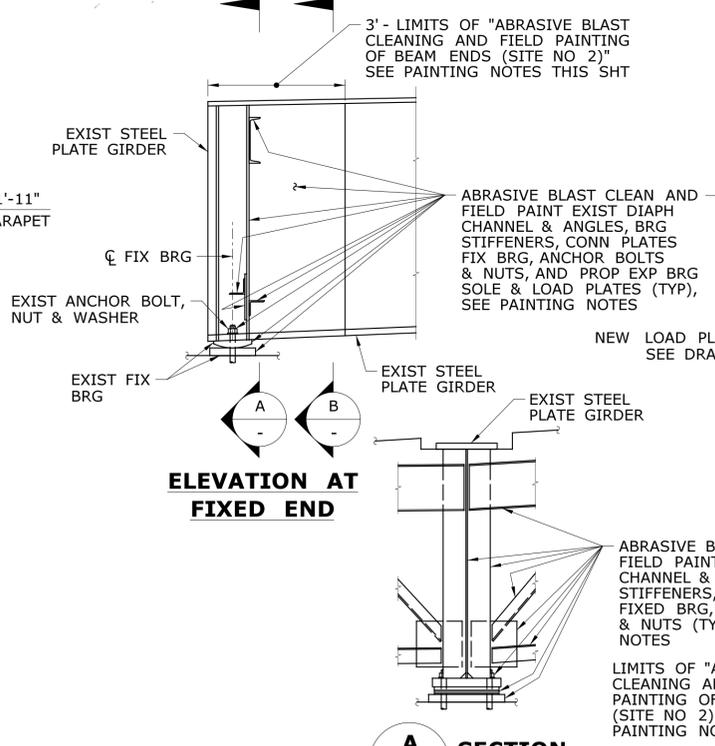
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/12/2016	DESIGNER: C. DAVIS	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: Cardinal Engineering Associates, Inc. 3 Colony Street Meriden, CT 06451	PROJECT TITLE: I-95 SB & TR 817 BRIDGE NOS. 02514A & 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER	TOWN: NEW LONDON/GROTON	PROJECT NO. 94-252
				CHECKED BY: M. EGAN				SCALE AS NOTED	



**SPAN 1-C
FRAMING PLAN**
SCALE: 1/8" = 1'-0"



TYPICAL BRIDGE SECTION
SCALE: 1/4" = 1'-0"



**ELEVATION AT
FIXED END**

**ELEVATION AT
EXP END**

A SECTION

B SECTION

3 CLEAN & PAINT BEAM ENDS
SCALE: 1/4" = 1'-0"

PAINTING NOTES

- COMPONENTS TO BE PAINTED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: ENDS OF BEAMS AND GIRDERS, DIAPHRAGMS AND CROSS FRAMES, STEEL FIXED BEARINGS, STEEL COMPONENTS OF EXPANSION BEARINGS, SCUPPERS, DRAINAGE PIPES AND TROUGHS, STATE-OWNED UTILITY CONDUITS, STRUCTURAL STEEL UTILITY SUPPORTS, ALL STRUCTURAL STEEL INSTALLED FOR REPAIR PURPOSES, AND ALL OTHER METAL COMPONENTS THAT ARE AN INTEGRAL PART OF THE BRIDGE SYSTEM. SEE SPECIAL PROVISION "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 2)"
- WHERE EXISTING STEEL EXPANSION BEARINGS ARE BEING REPLACED, THE CONTRACTOR SHALL REMOVE THE EXISTING EXPANSION BEARINGS AS INDICATED ON THE PLANS AND INSTALL THE PROPOSED STEEL REINFORCED ELASTOMERIC EXPANSION BEARINGS, PRIOR TO "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS".

STRUCTURAL STEEL REPAIR LEGEND

- ① LOCALIZED PAINT REMOVAL AND FIELD PAINTING OF EXISTING STEEL AT INTERFACE WITH BOTTOM FLANGE AND WEB
- ③ ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS
- ④ REPAIR WELD AT STIFFENER

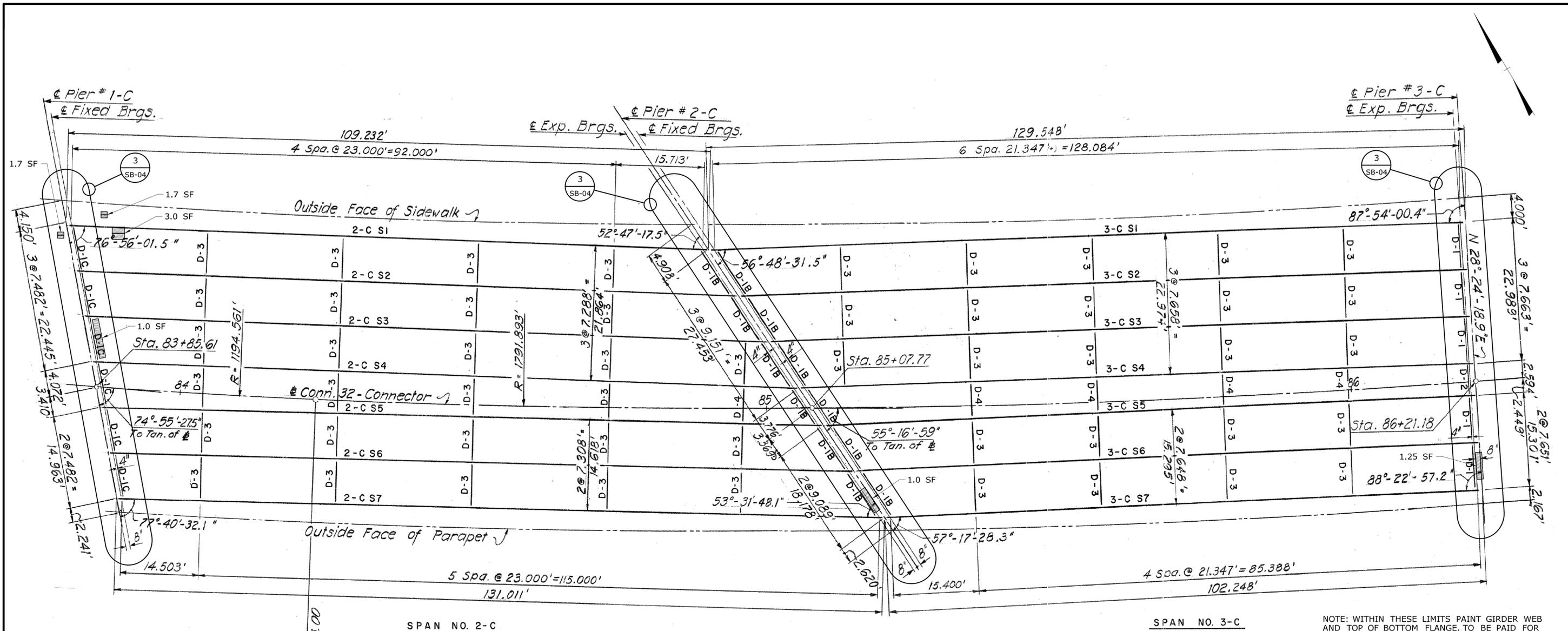
UNDERSIDE DECK DETERIORATION LEGEND

- ☐ - DELAMINATED/HOLLOW CONCRETE
- ☐ - CONCRETE SPALL
- ☐ - CONCRETE SPALL WITH EXPOSED REINFORCEMENT
- SF - SQUARE FEET
- EA - EACH

FOR DECK PATCHING DETAILS, SEE DRAWING NO. SA-99

3'- LIMITS OF "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 2)" SEE PAINTING NOTES THIS SHIT

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				CHECKED BY: M. EGAN				SCALE AS NOTED	DRAWING TITLE: FRAMING PLAN SPAN 1-C
				FILENAME: ...\\SB_MSH_0094_0252_BR_NO_02514B_FRM-1.dgn				SHEET NO. 05.04	



PAINTING NOTES

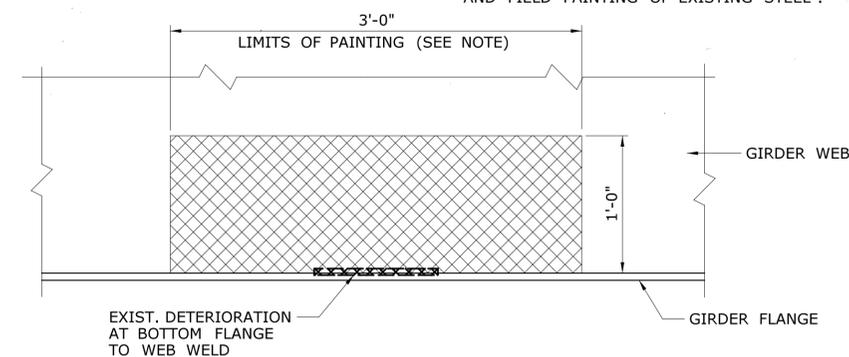
- COMPONENTS TO BE PAINTED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: ENDS OF BEAMS AND GIRDERS, DIAPHRAGMS AND CROSS FRAMES, STEEL FIXED BEARINGS, STEEL COMPONENTS OF EXPANSION BEARINGS, SCUPPERS, DRAINAGE PIPES AND TROUGHS, STATE-OWNED UTILITY CONDUITS, STRUCTURAL STEEL UTILITY SUPPORTS, ALL STRUCTURAL STEEL INSTALLED FOR REPAIR PURPOSES, AND ALL OTHER METAL COMPONENTS THAT ARE AN INTEGRAL PART OF THE BRIDGE SYSTEM. SEE SPECIAL PROVISION "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 2)
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STRUCTURAL STEEL REPAIR LEGEND

- ③ ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS

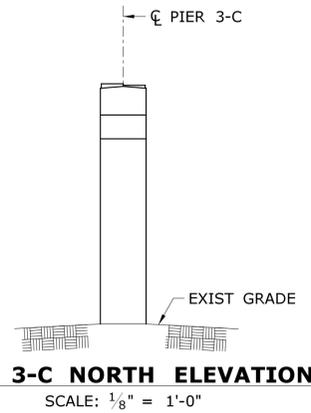
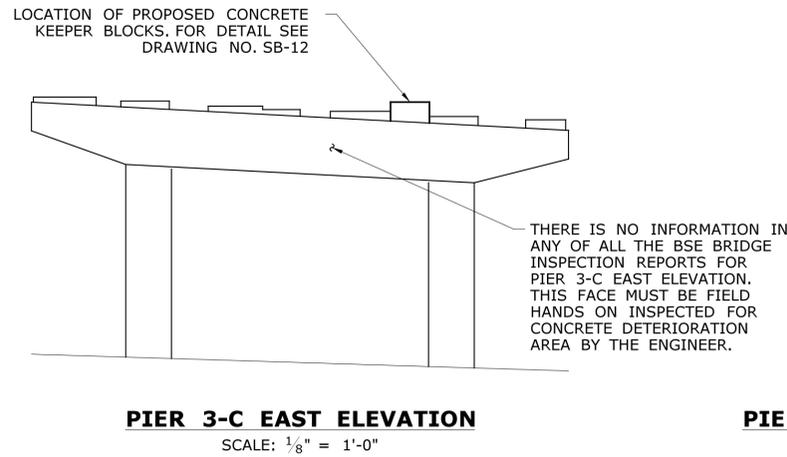
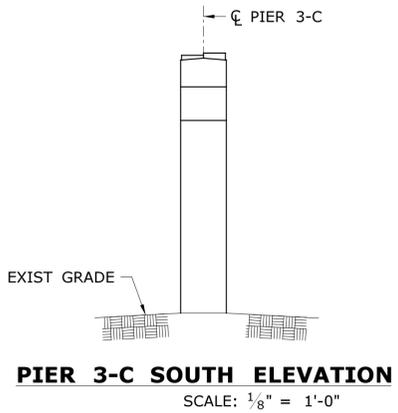
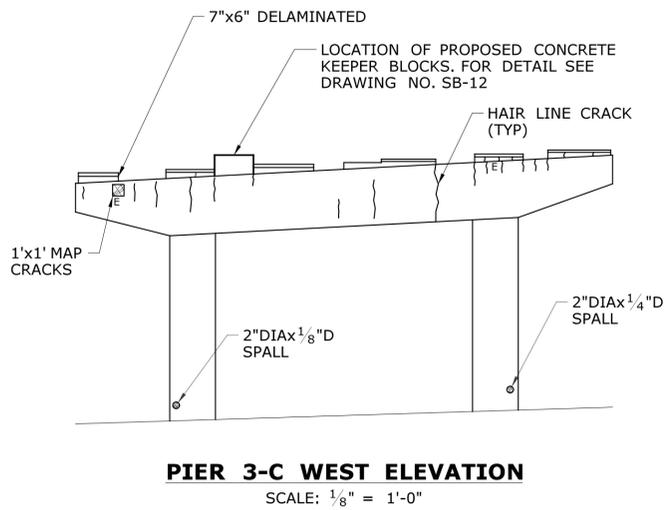
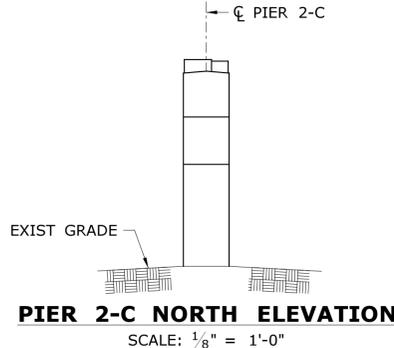
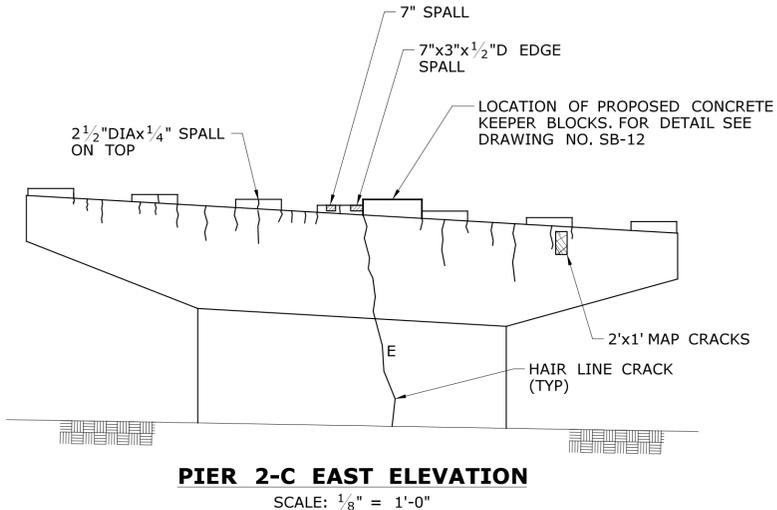
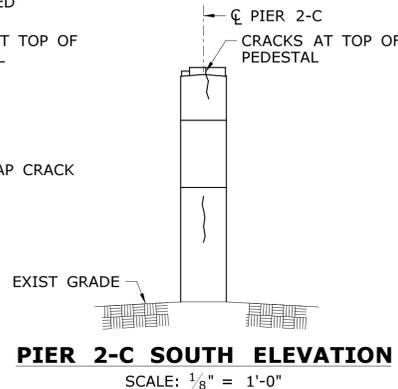
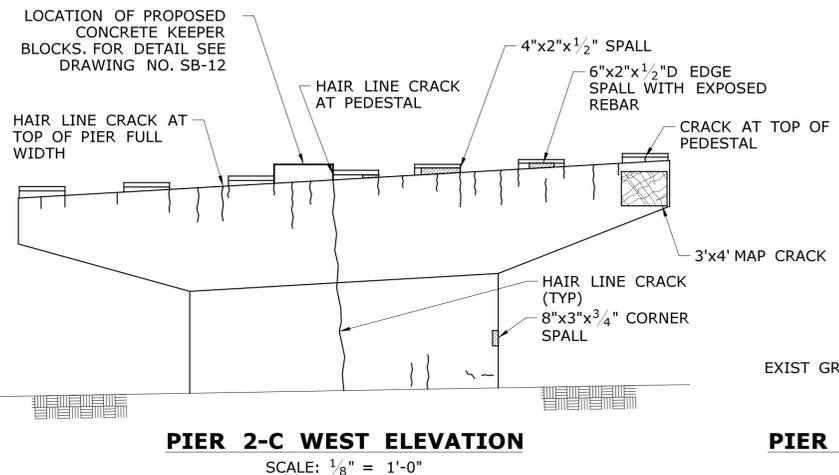
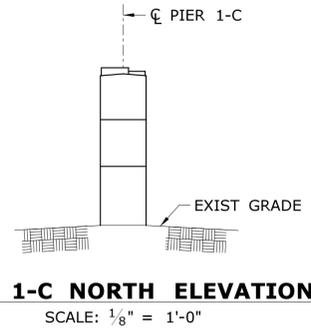
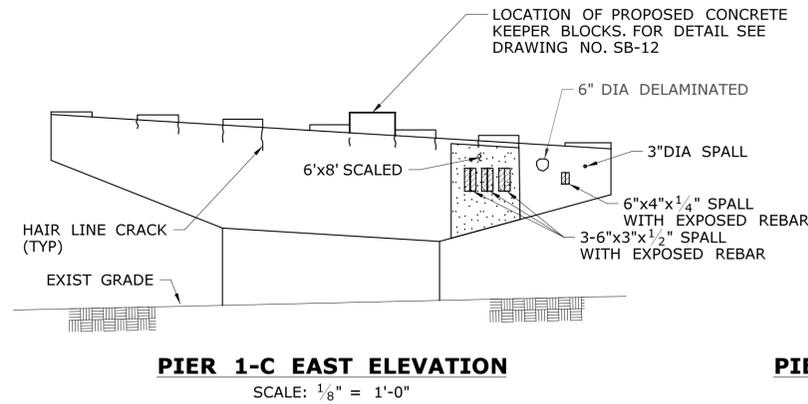
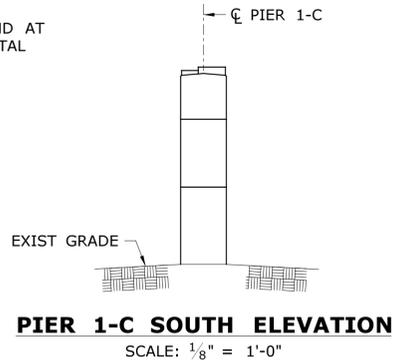
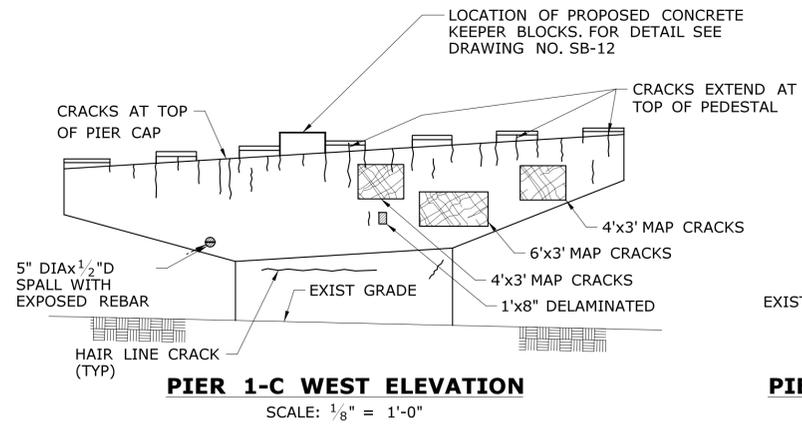
UNDERSIDE DECK DETERIORATION LEGEND

- ☐ - DELAMINATED/HOLLOW CONCRETE
- ☐ - CONCRETE SPALL
- ☐ - CONCRETE SPALL WITH EXPOSED REINFORCEMENT
- SF - SQUARE FEET
- EA - EACH



1 LOCALIZED PAINT REMOVAL & FIELD PAINTING OF EXISTING STEEL AT INTERFACE WITH BOTTOM FLANGE AND WEB
SCALE: 1/2" = 1'-0"

REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/12/2016	DESIGNER/DRAFTER: C. DAVIS CHECKED BY: M. EGAN SCALE AS NOTED	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>File name: ...SB_MSH_0094_0252_BR_NO_02514B_FRM-2.dgn</p>	SIGNATURE/BLOCK: Cardinal Engineering Associates, Inc. 3 Colony Street Meriden, CT 06451	PROJECT TITLE: I-95 SB & TR 817 BRIDGE NOS. 02514A & 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER	TOWN: NEW LONDON/GROTON	PROJECT NO. 94-252 DRAWING NO. SB-05 SHEET NO. 05.05
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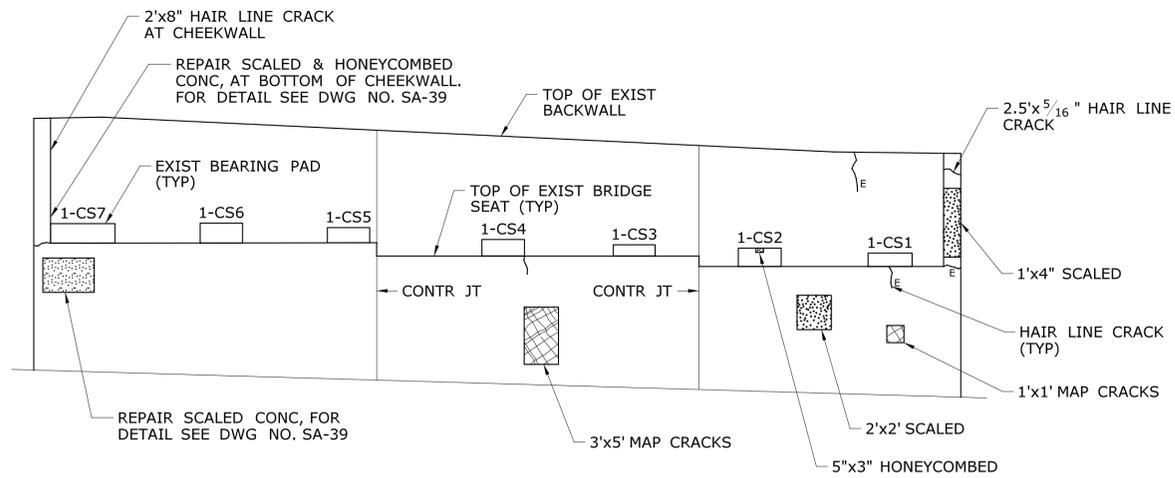


- NOTES:**
1. THE SUBSTRUCTURE DETERIORATION AND REPAIR DIMENSIONS ARE BASED ON LIMITED FIELD OBSERVATIONS AND BRIDGE SAFETY INSPECTION REPORT (NOVEMBER 22, 2013). THE INFORMATION IS INTENDED TO BE USED AS A GUIDE AND DOES NOT NECESSARILY REFLECT THE CURRENT CONDITION OF THE STRUCTURE. THE EXACT LOCATION AND LIMITS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION. DETERIORATIONS SHOWN ARE NOT DRAWN TO SCALE FOR CLARITY, THOUGH CRACKS ARE SHOWN APPROXIMATELY TO SCALE.
 2. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS FOR THE ENGINEER TO DELINEATE AND REVIEW THE REPAIR WORK. THE COST OF PROVIDING ACCESS SHALL BE INCLUDED IN THE COST OF APPROPRIATE REPAIR ITEMS.
 3. THE CONTRACTOR SHALL NOT PERFORM ANY REPAIR WORK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 4. SPALL AREAS AND SHALLOW REBAR AREAS SHALL BE REPAIRED IN ACCORDANCE WITH DETAILS SHOWN ON DRAWING NO. SA-39.

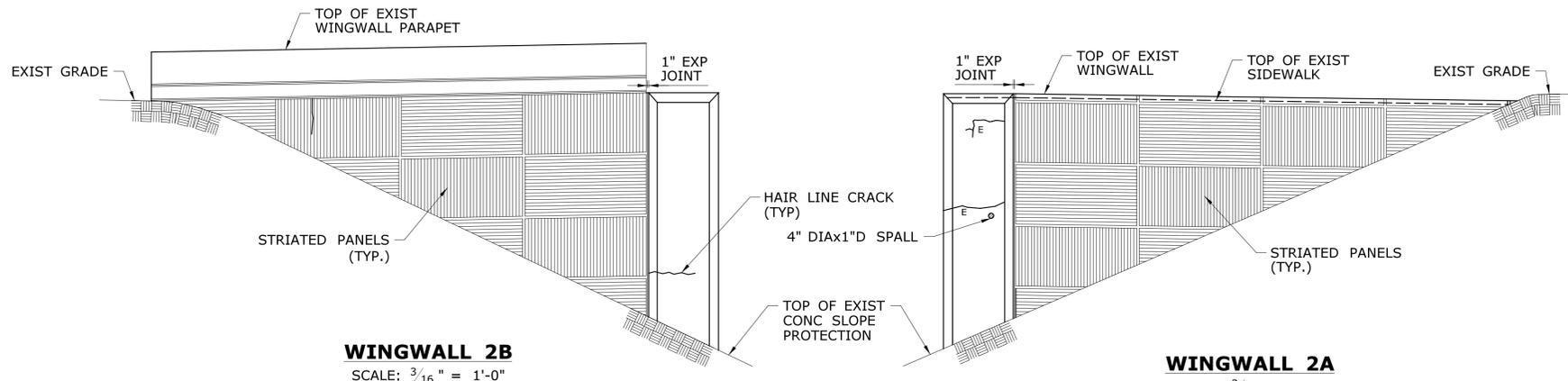
LEGEND

- DELAMINATED/HOLLOW CONCRETE
- SPALLED CONCRETE
- SPALLED CONCRETE WITH EXPOSED REINFORCEMENT
- SCALED CONCRETE
- HONEYCOMBED CONCRETE
- HONEYCOMBED CONCRETE WITH EXPOSED REINFORCEMENT
- CONCRETE POPOUT
- HAIR LINE CRACK OR CRACK
- MAP CRACKS
- WITH EFFLORESCENCE

		THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: S. SLATER CHECKED BY: M. EGAN SCALE AS NOTED	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>File name: ...SB_MSH_0094_0252_BR_NO_02514B.SUB 1.dgn</p>	SIGNATURE/BLOCK: <p>Cardinal Engineering Associates, Inc. 3 Colony Street Meriden, CT 06451</p>	PROJECT TITLE: I-95 SB & TR 817 BRIDGE NOS. 02514A & 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER	TOWN: NEW LONDON/GROTON	PROJECT NO. 94-252 DRAWING NO. SB-06 SHEET NO. 05.06
REV. DATE REVISION DESCRIPTION SHEET NO.	Plotted Date: 7/12/2016	SUBSTRUCTURE PATCHING REPAIRS						



ABUTMENT 2 ELEVATION
SCALE: 3/16" = 1'-0"



WINGWALL 2B
SCALE: 3/16" = 1'-0"

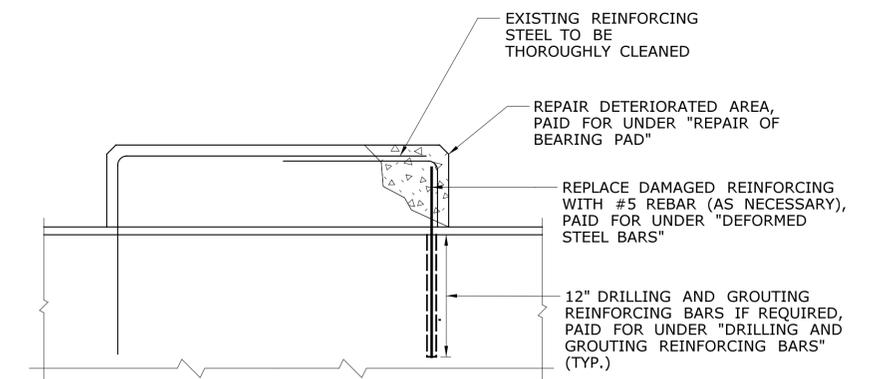
WINGWALL 2A
SCALE: 3/16" = 1'-0"

LEGEND

- DELAMINATED/HOLLOW CONCRETE
- SPALLED CONCRETE
- SPALLED CONCRETE WITH EXPOSED REINFORCEMENT
- SCALED CONCRETE
- HONEYCOMBED CONCRETE
- HONEYCOMBED CONCRETE WITH EXPOSED REINFORCEMENT
- CONCRETE POPOUT
- HAIR LINE CRACK
- MAP CRACKS
- E - WITH EFFLORESCENCE

NOTES:

1. THE SUBSTRUCTURE DETERIORATION AND REPAIR DIMENSIONS ARE BASED ON LIMITED FIELD OBSERVATIONS AND BRIDGE SAFETY INSPECTION REPORT (NOVEMBER 22, 2013). THE INFORMATION IS INTENDED TO BE USED AS A GUIDE AND DOES NOT NECESSARILY REFLECT THE CURRENT CONDITION OF THE STRUCTURE. THE EXACT LOCATION AND LIMITS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS FOR THE ENGINEER TO DELINEATE AND REVIEW THE REPAIR WORK. THE COST OF PROVIDING ACCESS SHALL BE INCLUDED IN THE COST OF APPROPRIATE REPAIR ITEMS.
3. THE CONTRACTOR SHALL NOT PERFORM ANY REPAIR WORK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
4. SPALL AREAS AND SHALLOW REBAR AREAS SHALL BE REPAIRED IN ACCORDANCE WITH DETAILS SHOWN ON DWG. NO. SA-39 (TYP.).
5. ONLY CRACKS THAT MEET THE CRITERIA SPECIFIED ON DWG. NO. SA-39 SHALL BE REPAIRED.
6. FOR CONCRETE BEARING PADS NOTED TO BE REPAIRED SEE DETAIL THIS SHEET.



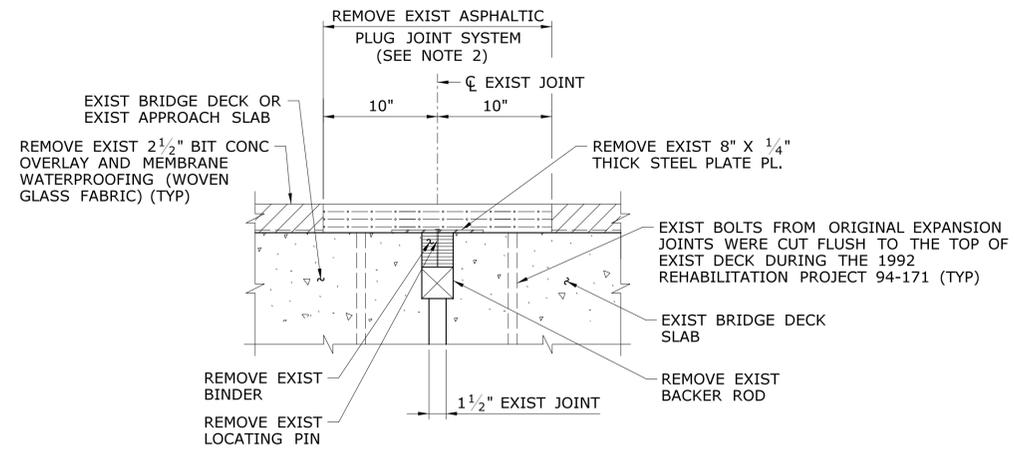
CONCRETE BEARING PAD REPAIR DETAIL

NOT TO SCALE

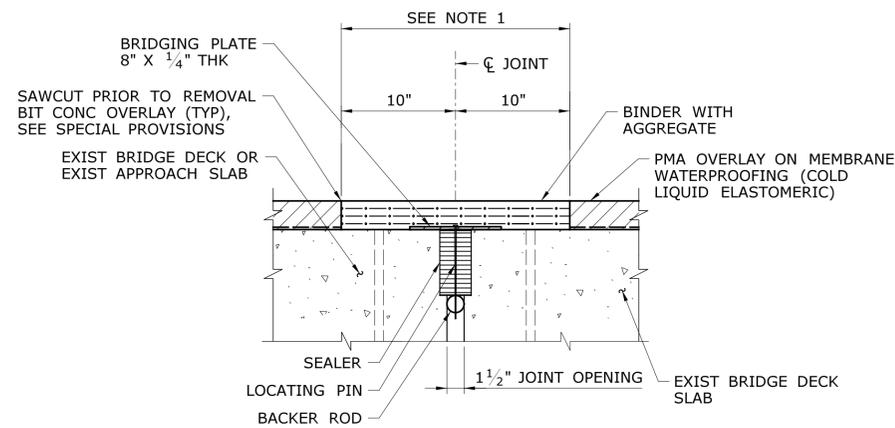
NOTE:

CONTRACTOR SHALL LIMIT REMOVAL OF CONCRETE BEARING PADS TO AVOID POTENTIAL UNDERMINING OF BEARING PADS. BEARING PAD REMOVAL SHALL BE AS DIRECTED BY THE ENGINEER.

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REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/12/2016	Filename: ...\\SB_MSH_0094_0252_BR_NO_02514B.SUB 2.dgn	



EXISTING CONDITIONS



PROPOSED REPAIR

A
ASPHALTIC PLUG
EXPANSION JOINT SYSTEM
SECTION
(ABUTMENT 2 & PIERS 1-C, 2-C & 3-C)
 SCALE: 1 1/2" = 1'-0"

NOTES:

1. REMOVE NEW BITUMINOUS CONCRETE OVERLAY AND MEMBRANE WATERPROOFING. REPLACE WITH ASPHALTIC PLUG EXPANSION JOINT SYSTEM. TO BE PAID FOR UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". (SEE SPECIAL PROVISION)
2. REMOVAL OF EXISTING JOINT TO BE PAID FOR UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".

THERMAL MOVEMENT RANGE FOR ASPHALTIC PLUG JOINT INSTALLATIONS

JOINT LOCATION	THERMAL MOVEMENT	RANGES AS PER SPECIFICATION
ABUTMENT NO. 2	0"	0" - 1"
PIER NO. 1-C	1.18"	1 1/4"
PIER NO. 2-C	1.14"	1 1/4"
PIER NO. 3-C	1.06"	1 1/8"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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DESIGNER:
C. DAVIS
 CHECKED BY:
M. EGAN
 SCALE AS NOTED



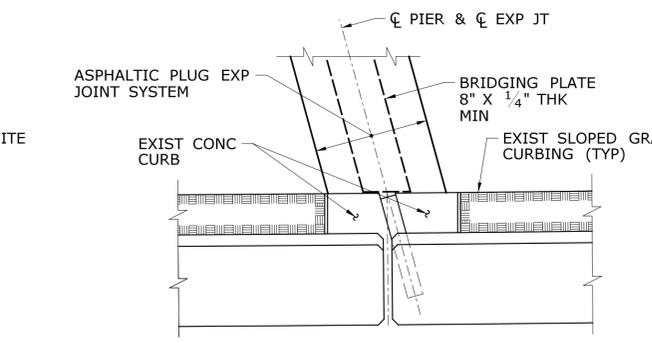
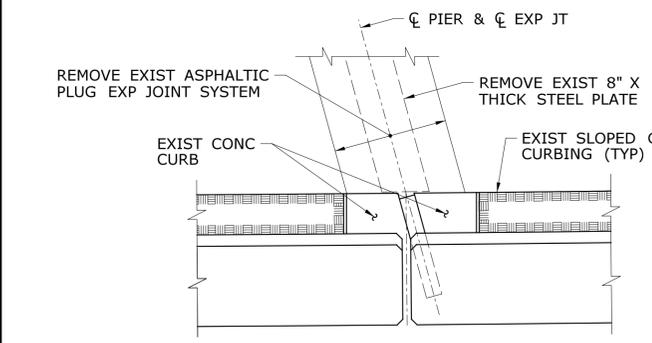
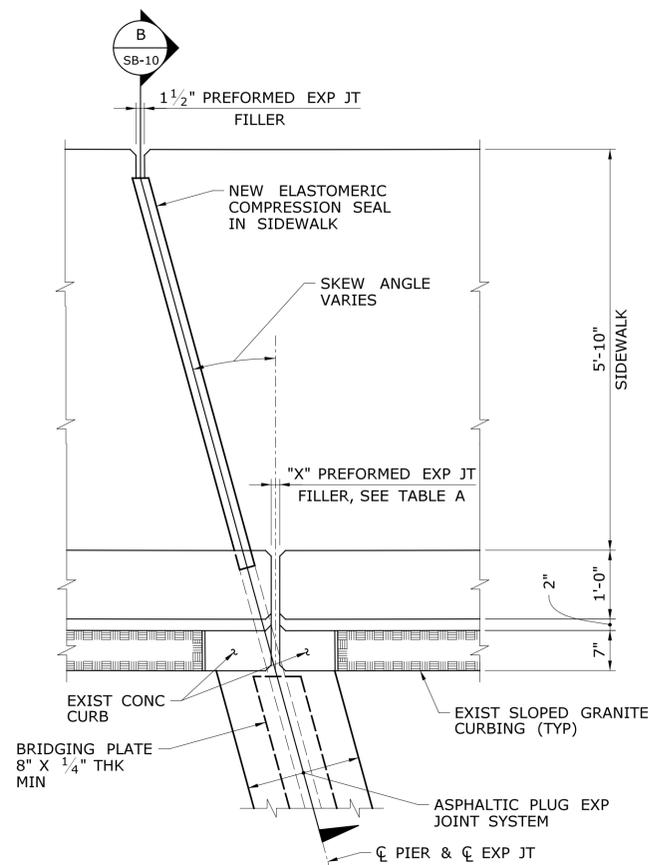
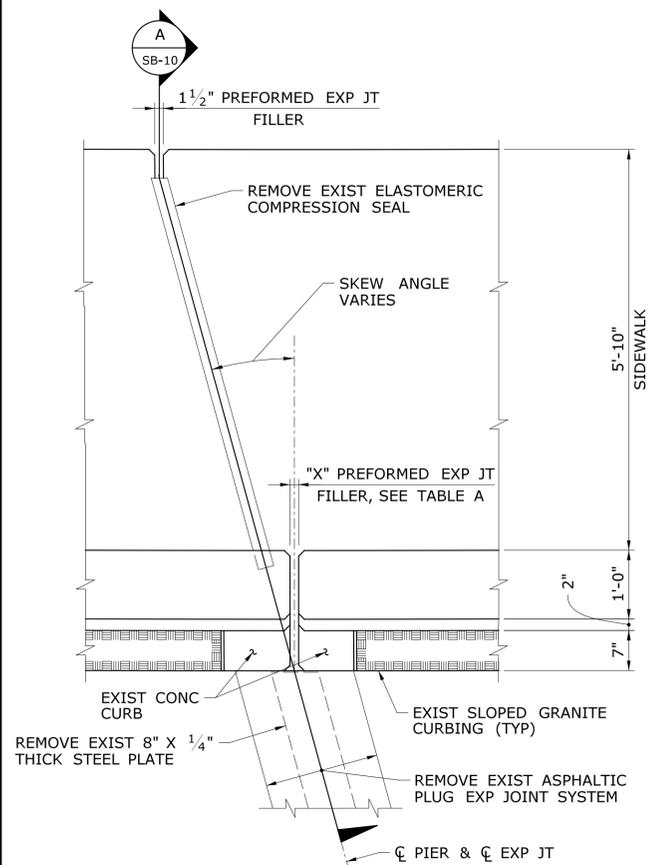
SIGNATURE/
 BLOCK:

 Cardinal Engineering Associates, Inc.
 3 Colony Street
 Meriden, CT 06451

PROJECT TITLE:
I-95 SB & TR 817 BRIDGE NOS. 02514A & 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER

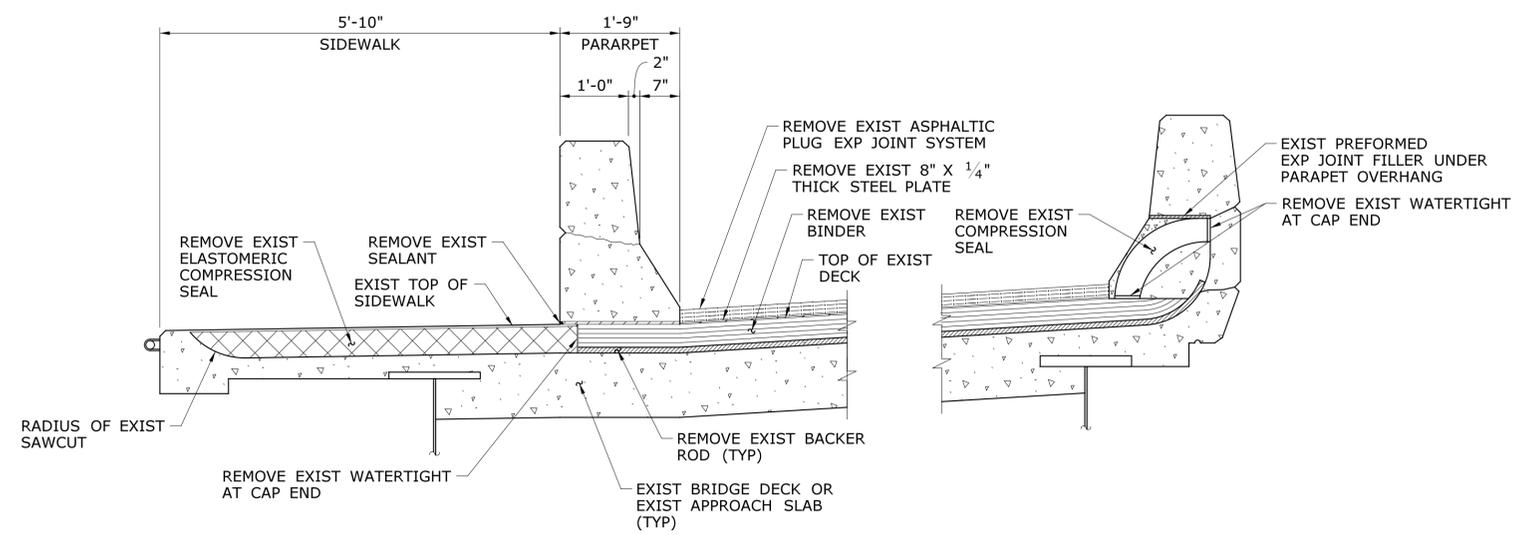
TOWN:
NEW LONDON/GROTON
 DRAWING TITLE:
ASPHALTIC PLUG EXP JOINT DETAILS - 1

PROJECT NO.
94-252
 DRAWING NO.
SB-09
 SHEET NO.
05.09

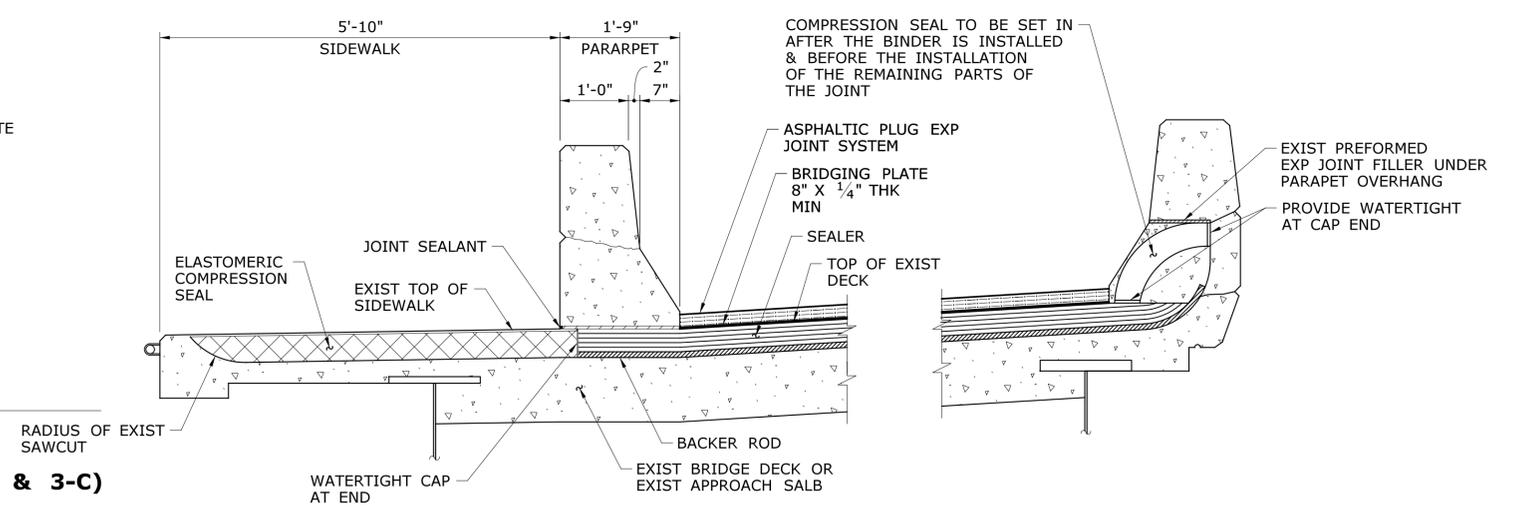


1
-
EXISTING CONDITIONS PLAN
ASPHALTIC PLUG
EXPANSION JOINT SYSTEM
(ABUTMENT 3 & PIERS 1-C, 2-C & 3-C)
SCALE: 3/4" = 1'-0"

2
-
PROPOSED REPAIR PLAN
ASPHALTIC PLUG
EXPANSION JOINT SYSTEM
(ABUTMENT 3 & PIERS 1-C, 2-C & 3-C)
SCALE: 3/4" = 1'-0"



A
-
EXISTING CONDITIONS SECTION
ASPHALTIC PLUG
EXPANSION JOINT SYSTEM
(ABUTMENT 3 & PIERS 1-C, 2-C & 3-C)
SCALE: 3/4" = 1'-0"



B
-
PROPOSED REPAIR SECTION
ASPHALTIC PLUG
EXPANSION JOINT SYSTEM
(ABUTMENT 3 & PIERS 1-C, 2-C & 3-C)
SCALE: 3/4" = 1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

DESIGNER: **C. DAVIS**
CHECKED BY: **M. EGAN**
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Plotted Date: 7/12/2016

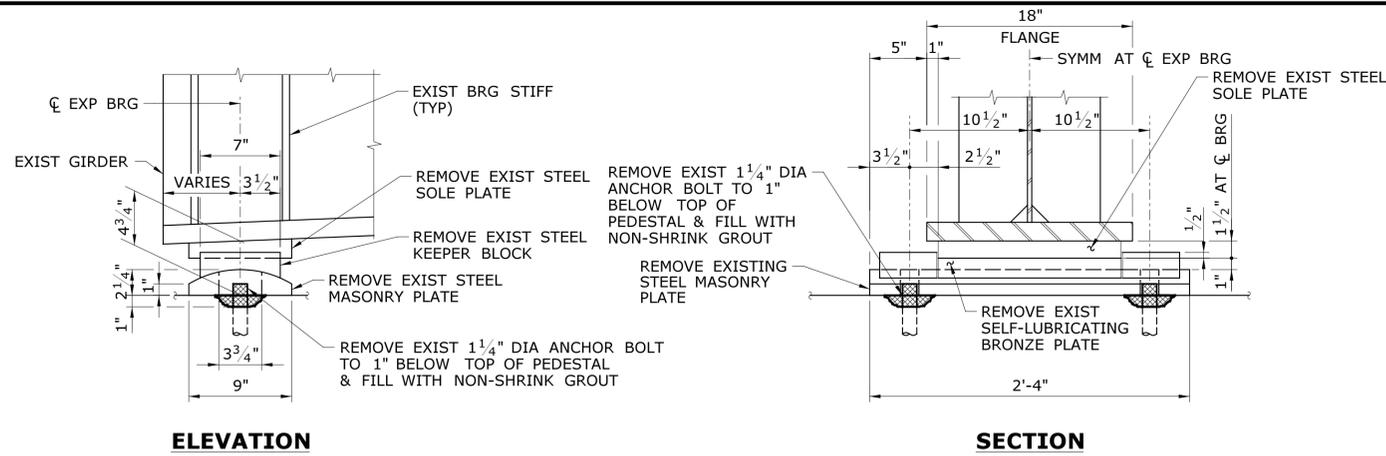
SIGNATURE/BLOCK:

Cardinal Engineering Associates, Inc.
3 Colony Street
Meriden, CT 06451

PROJECT TITLE:
I-95 SB & TR 817 BRIDGE NOS. 02514A & 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER

TOWN: **NEW LONDON/GROTON**
DRAWING TITLE: **ASPHALTIC PLUG EXP JOINT DETAILS -2**

PROJECT NO. **94-252**
DRAWING NO. **SB-10**
SHEET NO. **05.10**



ELEVATION

SECTION

EXISTING EXPANSION BEARING REMOVAL

SCALE: 1 1/2" = 1'-0"

MINIMUM JACKING LOADS					
ELSTOMERIC BEARING DESIGN LOAD (SERVICE)				MINIMUM JACKING LOAD	REQUIRED JACKING STIFFENER
SPAN	PIER	DL (KIPS)	LL+I (KIPS)	(KIPS)	PLATE SIZE
SPAN 1-C	PIER 1-C	100	122	222	60" x 6" x 5/8"
SPAN 2-C	PIER 2-C	100	122	222	60" x 6" x 5/8"
SPAN 3-C	PIER 3-C	100	122	222	60" x 6" x 5/8"

BEARING NOTES:

BEARING DESIGN METHOD: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, INCLUDING INTERIMS, SECTION 14.6.5 METHOD B.

THE CONTRACTOR SHALL RECORD THE GRADE OF THE EXISTING GIRDERS TO ACCURATELY PRODUCE NEW BEVELED SOLE PLATE.

FURNISHING AND INSTALLING ELASTOMERIC BEARING PADS SHALL BE PAID FOR UNDER THE ITEM "BEARING REPLACEMENT WITH ELASTOMERIC BEARING PADS".

ELASTOMER SHALL BE GRADE 3 VIRGIN NEOPRENE WITH SHORE 'A' DUROMETER HARDNESS = 60.

STEEL LAMINAE USED IN THE ELASTOMERIC BEARING SHALL CONFORM TO AASHTO M270, GRADE 36 AND SHALL BE INCLUDED IN THE COST OF THE ITEM "BEARING REPLACEMENT WITH ELASTOMERIC BEARING PADS".

LOAD PLATES SHALL CONFORM TO AASHTO M270, GRADE 50T2. THE LOAD PLATE SHALL BE HOT-BONDED TO THE ELASTOMERIC BEARING PAD DURING VULCANIZATION. THE COST OF THE VULCANIZED LOAD PLATE SHALL BE PAID FOR UNDER THE ITEM "BEARING REPLACEMENT WITH ELASTOMERIC BEARING PADS".

SOLE PLATES SHALL CONFORM TO AASHTO M270, GRADE 50T2 AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL REPAIRS (SITE NO. 2)".

SOLE PLATES SHALL BE BEVELED TO MATCH THE SLOPE OF THE GIRDER SO THAT THE BOTTOM SURFACE OF THE PLATE IS LEVEL AFTER APPLICATION OF FULL DEAD LOAD.

BOLTED CONNECTIONS SHALL BE SLIP-CRITICAL CONNECTIONS WITH SURFACE PREPARATION IN ACCORDANCE WITH AASHTO SPECIFICATION FOR CLASS "B" CONDITIONS AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL REPAIRS (SITE NO. 2)".

BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A325, TYPE 1 HIGH STRENGTH BOLTS AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL REPAIRS (SITE NO. 2)".

WELDING DETAILS, PROCEDURES, AND TESTING METHODS SHALL CONFORM TO ANSI/AASHTO/AWS D1.5: 2010, BRIDGE WELDING CODE.

ELASTOMERIC BEARINGS SHALL BE INSTALLED AT AN AMBIENT TEMPERATURE BETWEEN 40° F AND 80° F. CENTERLINE FOR BEARING PAD AND SOLE PLATE SHALL BE INSTALLED AT THE CENTERLINE OF BEARINGS. IF BEARINGS ARE INSTALLED OUTSIDE THIS TEMPERATURE RANGE, BEARINGS WILL HAVE TO BE JACKED AT A LATER DATE.

THE EXPOSED SURFACES OF THE ELASTOMERIC BEARING SHALL NOT BE PAINTED.

BEARING DESIGN GROUP I SERVICE LOADS:

DL = 100 KIPS
LL = 50 KIPS (HS-20-44)
TL = 150 KIPS

DL = 100 KIPS
LL = 115 KIPS (DESIGN OPERATING VEHICLE 204 KIPS ON 8 AXLES)
TL = 215 KIPS

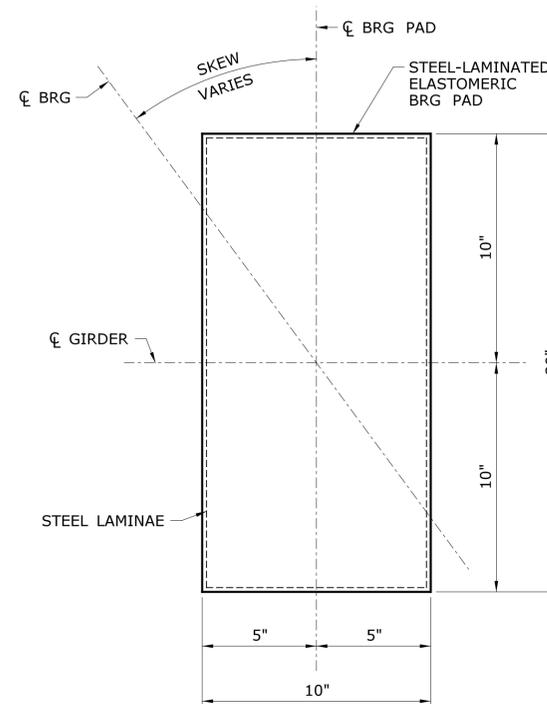
DL = 100 KIPS
LL = 122 KIPS (DESIGN OPERATING VEHICLE 380 KIPS ON 19 AXLES)
TL = 222 KIPS

THIS INFORMATION IS PROVIDED IN PART FOR THE LOAD TEST AS DESCRIBED IN THE SPECIAL PROVISION "BEARING REPLACEMENT WITH ELASTOMERIC BEARING PADS".

THE CONTRACTOR SHALL REMOVE AND SALVAGE THE EXISTING SELF-LUBRICATING BRONZE PLATES, AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, SEE "NOTICE TO CONTRACTOR-SALVAGE".

JACKING OF GIRDERS FOR REPLACING BEARINGS SHALL BE PAID FOR UNDER THE ITEM, "JACKING EXISTING SUPERSTRUCTURE (SITE NO. 2)." FOR JACKING DETAILS, SEE DRAWING NO. SA-58

JACKING STIFFENER SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL REPAIRS (SITE NO. 2)". NOTE THAT PAINTING JACKING STIFFENERS SHALL BE PAID FOR UNDER THE ITEM "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF BEAM ENDS (SITE NO. 2)".

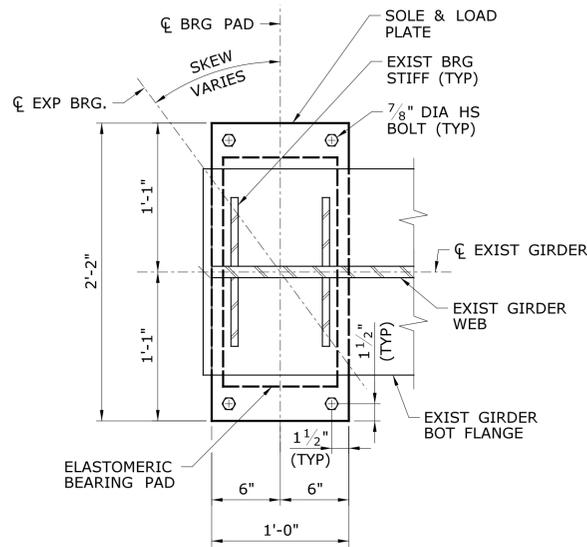


PLAN

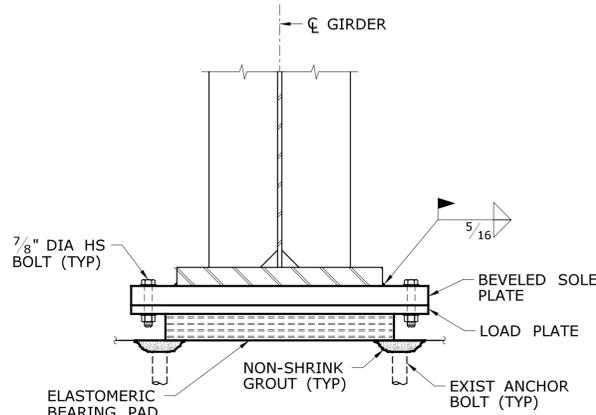
SECTION

STEEL-LAMINATED ELASTOMERIC BEARING PAD

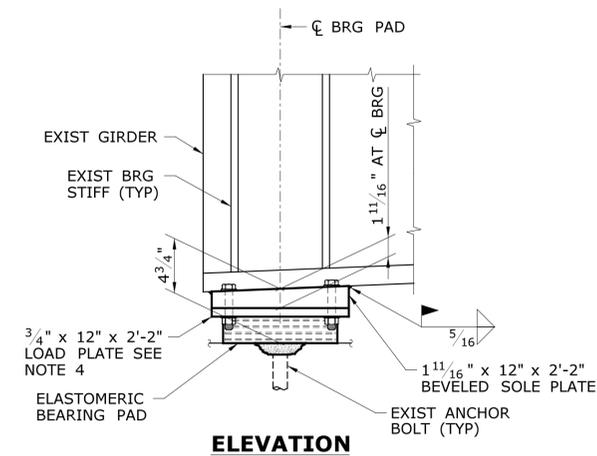
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PLAN



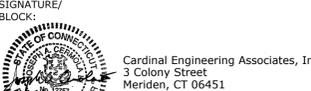
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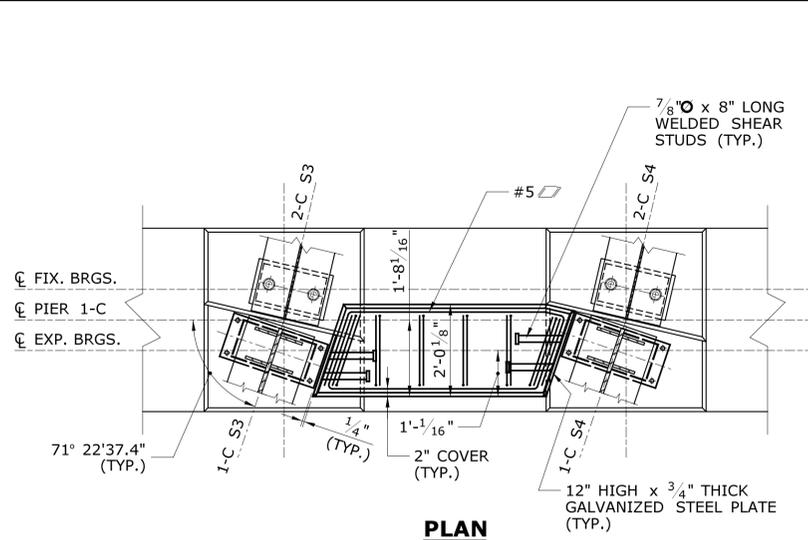


ELEVATION

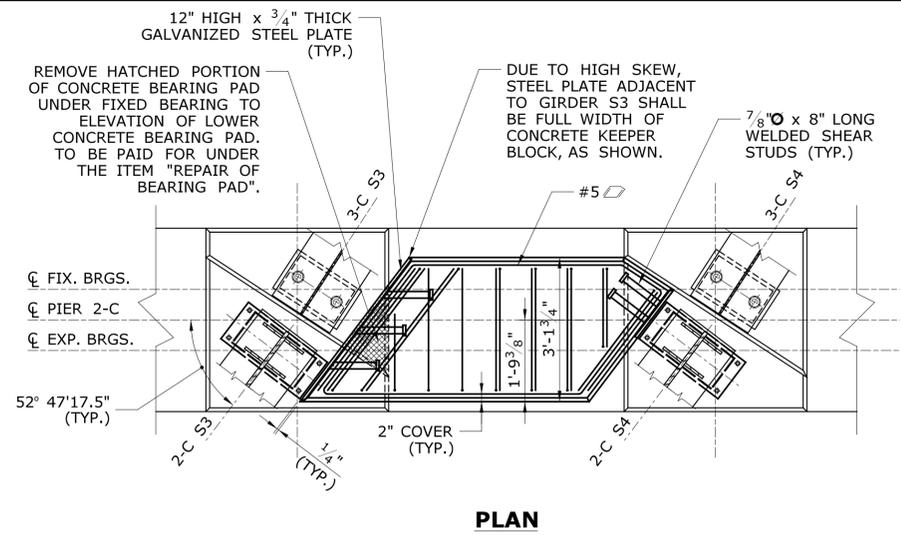
EXPANSION BEARING REPLACEMENT

SCALE: 1 1/2" = 1'-0"

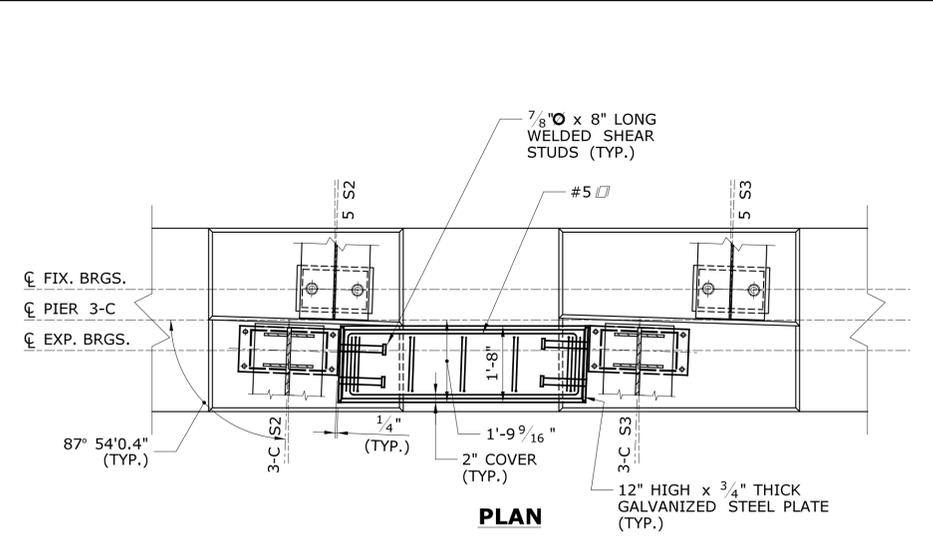
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/12/2016	DESIGNER/DRAFTER: C. DAVIS	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK:  Cardinal Engineering Associates, Inc. 3 Colony Street Meriden, CT 06451	PROJECT TITLE:	TOWN:	PROJECT NO.
				SCALE AS NOTED			I-95 SB & TR 817 BRIDGE NOS. 02514A & 02514B OVER THAMES RIVER, SR 635 RR, LOCAL ROADS & STATE PIER	NEW LONDON/GROTON	94-252
								DRAWING TITLE:	SHEET NO.
								BEARING DETAILS	05.11



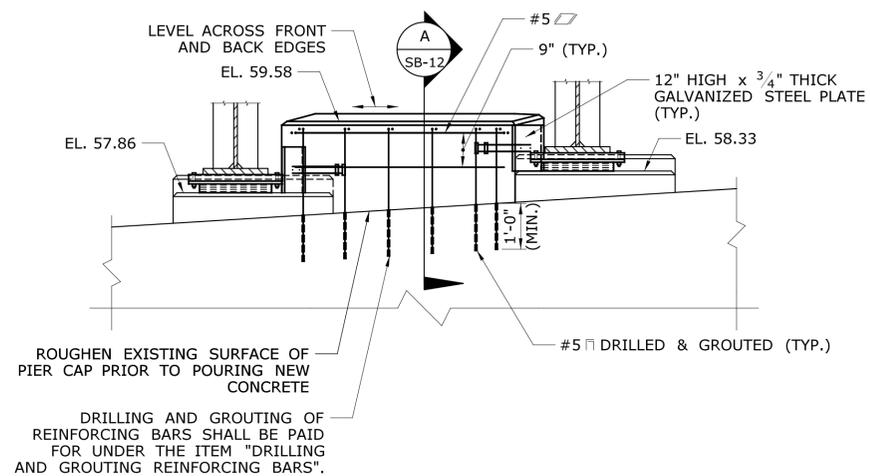
PLAN



PLAN



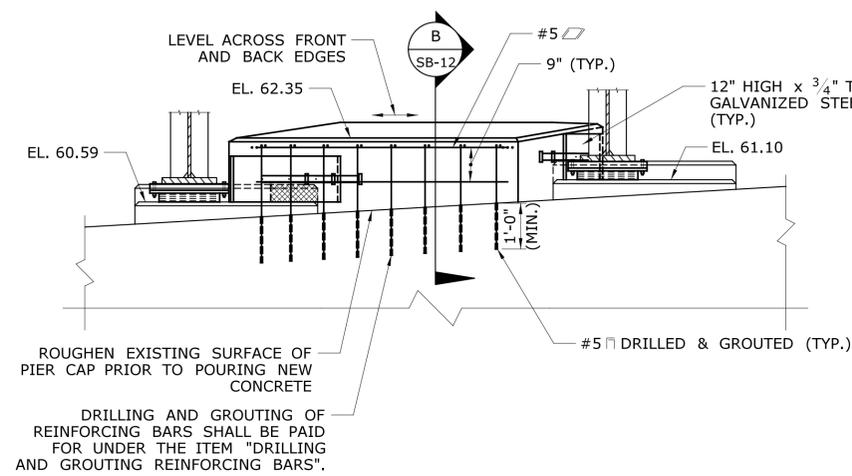
PLAN



ELEVATION

KEEPER BLOCK AT PIER 1-C

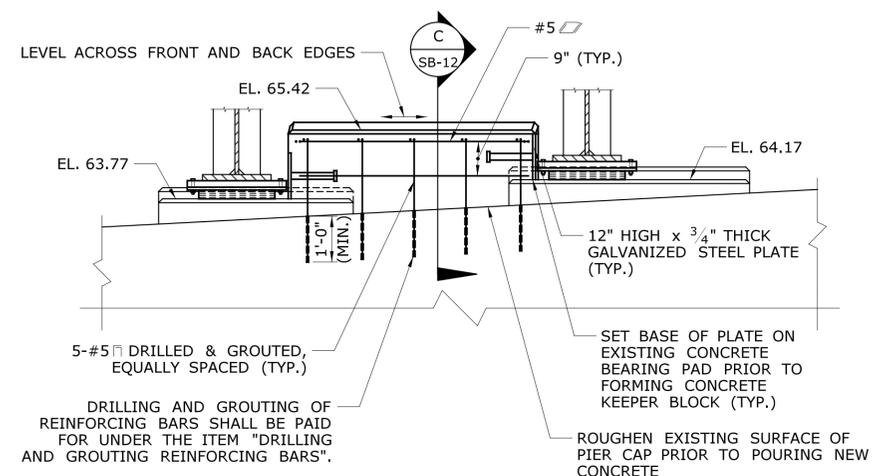
SCALE: 1/2" = 1'-0"



ELEVATION

KEEPER BLOCK AT PIER 2-C

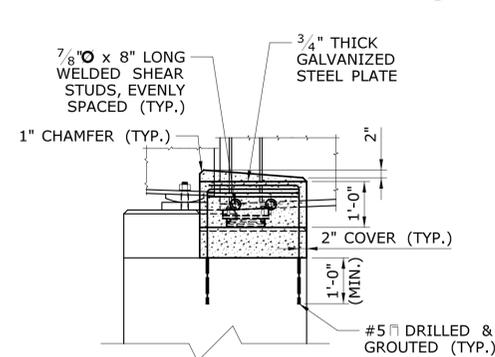
SCALE: 1/2" = 1'-0"



ELEVATION

KEEPER BLOCK AT PIER 3-C

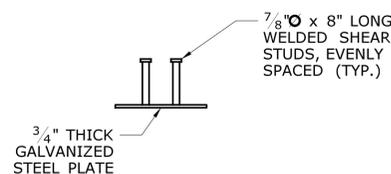
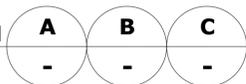
SCALE: 1/2" = 1'-0"



SECTION A SHOWN, SECTIONS B & C SIMILAR

TYPICAL SECTION

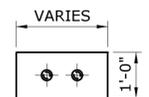
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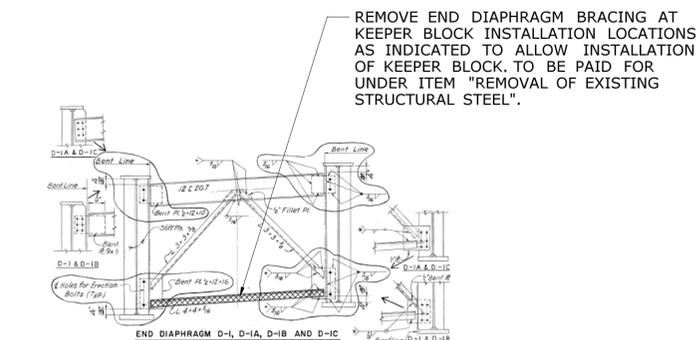
ELEVATION

TYPICAL PLATE DETAIL

SCALE: 1/2" = 1'-0"



PLAN



TYPICAL END DIAPHRAGM REMOVAL

NOT TO SCALE



NOTES:

- 1) PLATES WITH SHEAR STUDS SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL REPAIRS (SITE NO. 2)".
- 2) CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING PIER REINFORCING STEEL DURING DRILLING AND GROUTING OF REINFORCEMENT BARS. BAR LOCATIONS SHALL BE SHIFTED AS TO MISS EXISTING BARS IF ENCOUNTERED DURING DRILLING. CONTRACTOR SHALL USE A PACHOMETER TO LOCATE EXISTING PIER REINFORCEMENT. TO BE PAID FOR UNDER THE ITEM "DRILLING AND GROUTING REINFORCING BARS".
- 3) CONCRETE FOR KEEPER BLOCK TO BE PAID FOR UNDER THE ITEM "CLASS 'F' CONCRETE".

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

DESIGNER/DRAFTER:
C. DAVIS
CHECKED BY:
M. EGAN
SCALE AS NOTED



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TOWN:
NEW LONDON/GROTON
DRAWING TITLE:
CONCRETE KEEPER BLOCK DETAILS

PROJECT NO.
94-252
DRAWING NO.
SB-12
SHEET NO.
05.12